

ATTACHMENT II

LOUISIANA TECHNOLOGY INNOVATIONS FUND – SEMI-ANNUAL PROGRESS REPORT

[DATE]

[This report is due on March 1 and September 1 each year. Limit the length of the report to three pages]

I DEPARTMENT/AGENCY - LSU/Computing Services

II PROJECT TITLE / Log # 03/003

III PROJECT LEADER

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NOTE – Ronald Hay, original PI, is retiring in August

IV DESCRIPTION OF THE PROJECT

LSU requests \$999,768 to develop a robust, scalable environment to accelerate and facilitate the evaluation and deployment of Linux services and applications within public-supported entities in Louisiana. The move to open standards and open source is changing the world of information technology in the public and private sectors and higher education. Linux, once considered “disruptive technology” by IBM, is the leading example of open source software that implements open standards. Linux is becoming widely available on multiple hardware platforms and is now an option for many proprietary applications. Linux combined with virtualization technology offers a possible opportunity to combat the growing cost of supporting burgeoning, complex information technology infrastructures and the increasing dependence on a proprietary software platform. Recently, Linux was characterized in Computer World as a “Microsoft license killer.” Louisiana has been slow in embracing this emerging technology. The intent of this proposal is to maximize the opportunity to accelerate innovation with Linux, to limit dependence on proprietary systems and to focus on total cost of ownership issues.

V PROJECT STATUS

A. Brief Summary –

Basic hardware and software have been installed

B. Accomplishments -

The bid for our equipment was awarded to Mainline Information Systems in Shreveport, with subsequent delivery of our IBM 2066-OLF mainframe on January 2, 2004. After installation and initial testing by IBM, we configured the platform for two Logical Partitions (LPARs) to serve as development/testing and production environments. We then connected the platform to our existing disks and booted up our current z/Linux environment in the production LPAR, moving off the LSU 2066-002 mainframe on January 13, 2004.

We installed the SHARK disks, ESCON director, FICON cards, cables, etc., to complete the hardware installation at the LSU computer center. A tape robot expansion, including two LTO Ultrium tape drives, was installed at the ISB data center to handle backup capability.

The 31-bit SuSE Linux distribution for the s390 architecture arrived in late January. We installed it in our development/training LPAR and created a base Linux image for use as a cloning blueprint upon which to build new images. We developed a series of scripts that automate much of the cloning process. We have also developed a process for moving a Linux image from the development/training LPAR to the production LPAR. We have reserved blocks of network addresses for images that will reside in either LPAR. We received the 64-bit SuSE distribution mid-February, but are waiting to complete the image infrastructure before installing it. We expect the 64-bit distribution will function identically to the 31-bit version with which we're working, and both versions can coexist in our 64-bit z/VM underlying platform.

Currently, we are in the process of using the cloning procedures to create new Linux images based on the SuSE templates and migrating our existing Red Hat images to them. All new images are being created on the new SHARK disks. We are also setting up a web site for this project to promote dialogue with our users, "<http://zlinux.lsu.edu>".

We have installed the ESALPS z/VM-z/Linux monitoring system from Velocity Software and are working through its capabilities.

We have tentatively scheduled a workshop for March 30, 2004, to discuss the technical infrastructure of the project and solicit feedback and suggestions from the State technical community before solidifying some of the standard Linux services to be offered, such as web servers, database servers, file/print servers, etc.

C. Problems Encountered/Action Taken or Planned

No major problems. The bundled acquisition of hardware and software actually was bid at a lower price than anticipated and the budget was amended and approved in January 2004 to take advantage of the savings

D. Major Milestones (Original vs. Current Estimate)

Currently on target with the proposed schedule

VI COST VS. BUDGET

Note – On budget per Amendment dated January 7, 2004. Anticipate expending all LTIF funds by close of FY 03-04.

| | <u>Category</u> | <u>Budgeted</u> | <u>Actual</u> | <u>Projected Surplus</u> |
|----|--------------------------------|-----------------|---------------|--------------------------|
| A. | Equipment | | | |
| B. | Software | | | |
| C. | Telecommunications | | | |
| D. | Professional/Contract Services | | | |
| E. | Other Costs | | | |
| | Total Project Cost | ===== | ===== | ===== |

VII ITEMIZED EXPENSES AND FINANCIAL OBLIGATIONS INCURRED DURING THIS REPORTING PERIOD

[Include description, unit cost, quantity, and total cost for incurred expenses such as equipment, software, and telecommunications. Include contract title, name of contractor, OCR or P.O. Number, and amount for Professional Services and/or other Contract Services.]

LSU Bid# B4KRA0213 – Awarded to Mainline Systems 12/10/03

| | | |
|---|---|------------------|
| IBM zSeries z800-OLF, 2 engines, 3 year HW maint., 1 zVM license, 3 year zVM maint & support for 2 licenses | 1 | \$469,900 |
| IBM 2105-800 upgrade, Qty (2) 8-packs of 145.6GB Drives 3 year maint. | 1 | \$129,240 |
| Flashcopy Upgrade from 3 TB to 5 TB (V2) | 1 | \$15,318 |
| Qty (4) Ficon Channels for 2105-800 | 1 | \$6,000 |
| IBM 3584-D32 LTO Exp. Libr., Qty (2) fibre drives, 3 year maint. | 1 | \$63,949 |
| IBM 3592-J70 Controller, 3 year maint | 1 | \$46,048 |
| IBM 9032-003 Escon Director (used) 1 year maint. | 1 | \$17,920 |
| Qty (2) Websphere App Server (D5ON8LL) SW subscription and support (E005GLL) | 1 | \$16,825 |
| Qty (2) DB2 Ent Server Lic (E52ABLL) SW subscription and support (EOOBILL) | 1 | \$37,225 |
| Qty (50) Single Domino User (D5BQYLL) SW Subscription and support (E1BROLL) | 1 | \$8,679 |
| SUSE Linux Distr. & Maint 3 years on 2066-OLF 2 engines | 1 | \$61,110 |
| SUSE Linux Supportline 24x7 3 years on 2066-OLF 2 engines | 1 | \$66,914 |
| Total Purchase Price | | \$939,128 |
| Optica ESCON Converter Vendor Anixter | 1 | \$2,215 |
| Linux/VM Perf. Tng. for Michael Lambert 1 Week, Mountain View, CA | 1 | \$2,592.29 |

Note – as of February 26, 2004, these funds have been expended but the transfer of funds from the State LTIF account to LSU is still in process.